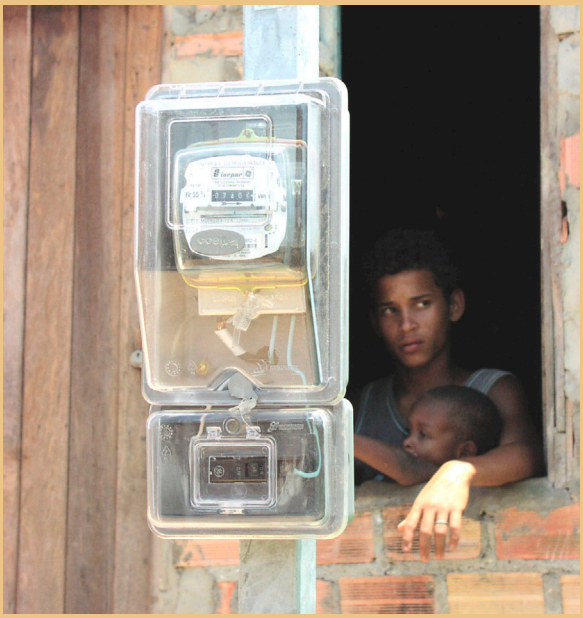
Innovative Approaches to Slum Electrification

Activity:	Innovative Approaches to Slum Electrification
Program Area:	Urban Energy
Implementer:	Advanced Engineering Associates International
Geographic focus:	Global
Countries:	Brazil, India, Philippines, and South Africa
Duration	May 2003 – March 2004



Slum residents such as this mother with her child in Salvador, Bahia, Brazil now have legal electricity service. The meter is an example of the standardized "metallic kit" used to lower costs of slum electrification and to reduce the ease of stealing electricity.

Project Background

The energy needs of extremely poor urban households, and particularly of women, in developing countries have been virtually ignored in the last several decades as development efforts were focused intensely on the more severe plight of the rural poor. Yet in-migration into cities is tipping the scales toward urban poverty as it has created very dense informal settlements (slums) where 30 to 40% of the urban population lives in poverty and dismal conditions. The lack of public services is endemic – except for electricity, as it is "easy to steal" and essential for an improved quality of life. Some might think that ignoring electricity theft is an easy and relatively painless way for society to subsidize the energy needs of the urban poor, but they ignore the very limited and poor quality of the power received, the extreme dangers that are posed by illegal and shoddy connections, and the financial implications for the electricity utility.

This study explores five cases in four countries where ground-breaking efforts were made to eliminate theft and legally electrify slum households in ways that are affordable to the consumers, the electricity company, and society while benefiting the slum communities with jobs and increased economic activity.

Development Objective

The study aims to inform the international community of new approaches to improving access to more efficient, healthier and more affordable electricity services for the urban poor. It offers recommendations on new mechanisms for service delivery to slum communities that help lower costs to consumers and utilities, make consumer payments easier, and incorporate gender differences in electricity usage and service delivery.

The value of newly electrified shacks in Salvador, Bahia has doubled, showing the value that people put on having legal electricity service.

Project Approach and Activities

This study is based on a literature review and five case studies in four countries (Brazil, India, Philippines, and South Africa). Teams of international and local development experts conducted site visits and interviewed project beneficiaries in the slum communities, the electricity company, NGOs and CBOs, regulators, municipal governments, and other institutions involved in slum upgrading activities. The case studies focus on project design, implementation, results achieved and lessons learned especially with respect to project sustainability and potential for replication elsewhere. An energy and gender expert was included on the study team to contribute to the study's findings on the role of women in electricity usage and service delivery in slum electrification projects.

Project Results

During the literature review which formed the basis for country case selection, the team found that very little has been written on effective approaches to slum electrification. Thus, the site visits conducted for the projects' case studies were critical to uncovering information to compare and evaluate the approaches tried.

The case studies showed that initial starting conditions vary greatly among slums and within and between cities so programs must adapt to the unique conditions within each target community. However, despite these differences, the study found a number of common elements that helped to achieve the project's slum electrification goals and objectives. These include, among others:

- Use of intermediaries from the community or employing community residents to study and organize the community as well as to operate and act as an interface between the electricity company and the community.

- Partnerships with organizations and local governments already active in slum upgrading.
- Reduction of program costs to the utility through standardization of low-cost and more theft-proof electrification technologies, applicable to a wide range of poor home construction materials.
- Flexible and extended payment terms to make it easier for slum residents to pay for connection and service.
- Incorporation of gender issues in slum electrification efforts, given gender differences in electricity usage. Women, often perceived in slum communities as being more trustworthy and better communicators, can play a unique role in service delivery.

Development Impact

Greater access to better quality electricity services at lower cost can lead to improved health and safety and increased income generation and economic activity within slum communities. Dissemination of the study findings may stimulate other electricity companies, government agencies, donors, and non-governmental organizations to initiate programs to improve access by slum households to affordable and legal electricity services.

A distribution company draws personnel from the slum community to provide a "community face" to its service.

Highly visible "maypole" type distribution system in Khayelitsha, Cape Town, South Africa makes electricity service drops less susceptible to theft.

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